

Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 1-3, 6, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,205,362 of *Eidson* ("*Eidson* ('362)") in view of U.S. Patent No. 5,566,180 of *Eidson* ("*Eidson* ('180)").

Claims 10-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Eidson* ('362).

Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Eidson* ('362) in view of *Eidson* ('180).

Claims 1-3, 6, and 9 have been canceled. New claims 15-28 have been added.

The Examiner has rejected claims 1-3, 6, and 9 under 35 U.S.C. § 103(a) as being unpatentable over *Eidson* ('362) and *Eidson* ('180). Applicants respectfully submit, however, that new claim 15 is not obvious in view of *Eidson* ('362) and *Eidson* ('180). New claim 15 is a distributed application that includes the limitations

Log a set of node applications which communicate via a network, each node application having at least one function which is associated with a significant event in the distributed application and further having a recorder function which when called by the function obtains a time-stamp for the significant event from a corresponding synchronized clock;
(New claim 15) (Emphasis added).

Eidson ('362) does not disclose or suggest distributed node applications having recorder functions which obtain time-stamps for significant events as claimed in new claim 15. Furthermore, *Eidson* ('180) does not disclose or suggest distributed node applications having recorder functions as claimed in new claim 15.

In further contrast, new claim 15 includes the following limitations

event log for each node application, each event log for holding a record of the corresponding

significant event and time-stamp such that the time-stamps provide a synchronized time base in the distributed application for evaluating the significant events.

(New claim 15) (Emphasis added).

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page 3* *memory*
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Eidson ('362) does not disclose or suggest a distributed application having event logs for holding records of significant events and time-stamps that provide a synchronized time base as claimed in new claim 15. Instead, Eidson ('362) teaches logging of data samples obtained from sensors (Eidson ('362), col. 4, lines 31-32).

B Moreover, Eidson ('180) does not disclose or suggest a distributed application having event logs for holding records of significant events and time-stamps as claimed in new claim 15. Instead, Eidson ('180) teaches storing time values for computing clock adjustments (Eidson ('180), col. 5, lines 14-18). *See 4/10/83*

It is therefore submitted that the distributed application of new claim 15 which includes node applications with recorder functions for obtaining time-stamps for significant events associated with functions of the node applications and which includes event logs for holding records that provide a synchronized time base is not obvious in view of Eidson ('362) and Eidson ('180).

Given that new claims 16-28 depend from new claim 15, it is submitted that new claims 16-28 are not obvious in view of the references cited by the Examiner.

The Examiner has rejected claims 10-11 under 35 U.S.C. § 103(a) as being unpatentable over Eidson ('362). Applicants respectfully submit, however, that amended claim 10 is not obvious in view of Eidson ('362). Amended claim 10 is a method of performance monitoring in a distributed system that includes the limitations

determining a set of significant events associated with a distributed application in the

distributed system;

providing each of a set of nodes applications associated with the distributed application with a recorder function which when called by at least one function in the node application associated with a significant event in the distributed application generates a record that identifies the significant event and includes a time-stamp for the significant event obtained from a corresponding synchronized clock;

running an experiment in the distributed application that generates one or more of the significant events;

obtaining the records from the node applications and analyzing the records
(Amended claim 10) (Emphasis added).

Eidson ('362) does not disclose or suggest performance monitoring in a distributed system as claimed in amended claim 10. Instead, *Eidson* ('362) teaches control system components that self-organize (*Eidson* ('362), col. 1, line 65 through col 2, line 7). Moreover, *Eidson* ('362) does not disclose or suggest providing node applications with recorder functions as claimed in amended claim 10.

Given that amended claim 11 depends from amended claim 10, it is submitted that amended claim 11 is not obvious in view of *Eidson* ('362).

The Examiner has rejected claims 12-14 under 35 U.S.C. § 103(a) as being unpatentable over *Eidson* ('362) and *Eidson* ('180). Amended claims 12-14 depend from amended claim 10 and amended claim 10 is not obvious in view of *Eidson* ('362) because *Eidson* ('362) does not disclose or suggest performance monitoring in a distributed system by providing node applications with recorder functions as claimed in amended claim 10. It is also submitted that *Eidson* ('180) does not disclose or suggest performance monitoring in a distributed system by providing node applications with recorder functions as claimed in amended claim 10. Instead, *Eidson* ('180) teaches clock synchronization among local clocks (*Eidson*

('180), col. 2, lines 47-64).

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-1078 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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Version with Markings to Show Changes Made

10. A method of performance monitoring in a distributed system, comprising the steps of:

determining a set of significant events associated with a distributed application in the distributed system;

providing each of a set of nodes applications associated with the distributed application with [the functionality to generate a time-stamp record when one of the significant events occur] a recorder function which when called by at least one function in the node application associated with a significant event in the distributed application generates a record that identifies the significant event and includes a time-stamp for the significant event obtained from a corresponding synchronized clock;

running an experiment in the distributed application that generates one or more of the significant events;

obtaining the [time-stamp] records from the node applications and analyzing the [time-stamp] records.

11. The method of claim 10, wherein each [time-stamp] record includes an event code associated with the corresponding significant event[s].

12. The method of claim 10, wherein the step of analyzing the [time-stamp] records comprises the step of generating a graphical representation of the [time-stamp] records.

13. The method of claim 10, further comprising the step of determining a set of delays in execution of the node applications associated with the generation of the [time-

stamp] records.

14. The method of claim 13, further comprising the step of correcting the [time-stamp] records in response to the delays.